Use of item types by UK institutional repositories

A comparison of existing policies, practices and guidelines and implications for the list of item types used by IRUS-UK

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Draft 1	Initial draft, copy sent to Phil Cross (IR) and Chris Awre	10 October 2012
Draft 2	Incorporating feedback from IRUS-UK team and recommendations for RepNet	8 November 2012
Draft 3	Restructured incorporating feedback from RM and JL, and quotes from IR and UKOLN	16 November 2012
Draft 4	Incorporating feedback from RM and PN, copy sent to Nancy Pontika (RSP)	29 November 2012
Version 1.0	Incorporating final feedback from RM and PN and quote from RSP	12 December 2012
Version 1.1	Table in Appendix 5 updated to include proposed IRUS-UK item types and mappings	12 December 2012
Version 2.0	Item types for creative deposits added in response to feedback from the repository community. Versions guidelines referenced.	30 January 2013
Version 3.0	Includes a review of the usage and suitability of the item types proposed in version 2, and the addition of any new guidelines that have been published or which we have become aware of since then.	May 2014
Version 3.1	Includes proposals for minor changes to IRUS-UK item type mappings.	August 2014

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1 Executive summary

IRUS-UK follows on from the PIRUS2 project
(http://www.cranfieldlibrary.cranfield.ac.uk/pirus2/tiki-index.php) which demonstrated
how COUNTER-compliant article-level usage statistics could be collected and consolidated
from Publishers and Institutional Repositories. PIRUS2 worked with a limited number of
item types (article, book chapter, book section, conference or workshop item, dataset,
manual, other, presentation, report, technical report, thesis or dissertation, working paper)
to which all other item types were mapped.

As part of the IRUS-UK project, we have examined a number of standards that have been
proposed for the use of item types in institutional repositories, together with the item types
that are actually being used. We have identified a number of issues affecting any attempts
to standardise item types across UK repositories and have proposed an initial listing of item
types for use in IRUS-UK. This is a pragmatic solution for the immediate future and can be
extended as the project progresses as the original item types for each download are being
stored and can be remapped at any stage.

In examining both the policies and guidelines and the actual usage of item types by UK
repositories a number of issues became apparent:

1. There is a lack of consistency between the various guidelines which have been
   produced for the use of item types in institutional repositories. They vary in the
   terminology used (eg 'Journal articles' or 'Articles'), the style of terms (eg 'Book item'
   or 'bookPart') and whether singular or plural terms are used (eg 'Book' or 'Books').
   Some guidelines include large numbers of terms, others only a few. Some include
   catch all terms such as 'Other', others don't.
2. Individual institutions have developed lists of item types for their institutional
   repositories which suit their own individual needs.
3. The software used by a repository may influence the item types that it uses,
   particularly if there is a default list included with the software as in the case of
   EPrints.
4. The item type chosen may vary depending on who creates the metadata when that
   item is deposited in a repository.
5. Some repositories and guidelines group items, whereas others have much more
   detailed breakdowns. For example bachelors, masters and doctoral theses may be
   separated out or grouped together.
6. Some repositories use the item type field for information that is of use to them but
   isn't strictly an item type, eg individual letters and numbers.
7. Some repositories allow for the use of multiple item types.

8. It would be impossible retrospectively to require institutional repositories to adhere to a standard listing.
9. The increased use of CRIS and the linking of CRIS to IRs have implications for the item types used by repositories both now and going forward.

IRUS-UK initially continued to use the listing from PIRUS2, but this study was undertaken to ascertain whether there were any guidelines on repository item types that existed and were in widespread use. In view of the inconsistencies identified above, a pragmatic approach was taken and a simplified version of the current IRS item type list is proposed for use in IRUS-UK. It aims to include the major item types that we are likely to encounter. We propose both an 'Other' heading for item types with few resources and an 'Unknown' heading where the content of the item type field is not an obvious item type.

Version 1 of this report proposed that:

The IRUS-UK list will contain the following item types: Article; Audio; Book; Book Section; Conference or Workshop Item; Exam Paper; Exhibition; Image; Journal; Learning Object; Moving Image; Other; Patent; Preprint, Report; Review; Text; Thesis or Dissertation; Unknown; Website; Working Paper.

Following feedback from the repository community, particularly in relation to creative outputs, additional item types were added and Exhibition was renamed Show/Exhibition, giving an updated list as follows:

The IRUS-UK list will contain the following item types: Art/Design Item; Article; Audio; Book; Book Section; Conference or Workshop Item; Dataset; Exam Paper; Image; Journal; Learning Object; Moving Image; Music/Musical Composition; Other; Patent; Performance; Preprint, Report; Review; Show/Exhibition; Text; Thesis or Dissertation; Unknown; Website; Working Paper.

As the original item types are stored for each download, it will be possible to remap types to expand or amend this list over time.

The existence and use of a harmonised version of item types would be of great benefit to the institutional repository community particularly in managing their usage data. We support the RIOXX recommendation that, going forward, a vocabulary be adopted or developed for item types.

However, the complexity of the existing use of item types is such that this is extremely unlikely ever to be retrospectively applied.

We propose that, rather than attempting to change existing item types, repositories are encouraged to map these to a generic list, either that used in IRUS-UK, which could be provided to institutions, or a similar listing. Ideally this item type should be stored in a separate field but if this were not possible, and it had to be stored in the same field as existing item types then it would need to be encoded in such a way that it could be distinguished and that it would be machine parsable.

We propose that further work be undertaken to investigate this including the possibility of developing some form of automated mapping tool for repositories to use.

Following this 2014 review of item type guidelines and usage, we propose that the item types used by IRUS-UK are slightly modified to remove 'Journal' and 'Review' and to split 'Conference or Workshop Item' into three categories. Thus:

> **The IRUS-UK list will contain the following item types: Art/Design Item; Article; Audio; Book; Book Section; Conference Papers /Posters; Conference Proceedings; Conference or Workshop Item – Other; Dataset; Exam Paper; Image; Learning Object; Moving Image; Music/Musical Composition; Other; Patent; Performance; Preprint; Report; Show/Exhibition; Text; Thesis or Dissertation; Unknown; Website; Working Paper.**

2 Methodology

A mixture of desk research, discussions with key representatives and interviews informed this report.

The Repositories Support Project (RSP) (http://www.rsp.ac.uk/) and the Institutional Repository Search (IRS) (http://irs.mimas.ac.uk/), which both have expertise in this area, were contacted to obtain further information about the use of item types in UK institutional repositories and to ascertain whether they were aware of any guidelines being consistently applied across the repositories.

We received the following feedback from Phil Cross at the Institutional Repository Search (IRS) project:

"Typing is of great interest to the Institutional Repository Search (IRS) due to the great variety of resources within the institutional repositories we harvest and the difficulties this causes in filtering search results for end-users. Unfortunately, in our experience, there is little standardisation of resource type terms across repositories and, in many cases, a lack of awareness of the basic requirements of standardising to a controlled set of terms leading to a lack of standardisation within individual repositories.

This results in two main problem areas: a lack of consistency in the harvested metadata in describing the same types of resource across repositories, for instance a dozen different forms of words for 'article'; and seemingly arbitrary and ad hoc descriptions of common types within repositories, for instance numerous masters and doctoral degree titles rather than the use of a simple 'doctoral thesis' type. Combined with a lack of standardisation of the form for the same types within an institution, together with spelling errors and variations in punctuation, this suggests the use of end-user data entry with no oversight in place.

Unfortunately there is no standard set of resource types that we are aware of that provides the breadth and detail necessary to describe the full contents of institutional repositories, which needs to consist of a far wider range of types than simply those of academic publications. However one could wish for a greater understanding from repository managers for the need for standardisation and consistency within repositories and a better understanding of the needs of the end users who may wish to search through their collections."

We received the following feedback from Bill Hubbard and Nancy Pontika at the Repositories Support Project (RSP):

"Typing of contents would be a useful and timely development. Initially repositories were built with user generated metadata on a "good enough" basis, which was felt necessary to kick-start growth. Repositories managers are likely to work to the institution's library and have a good appreciation of the value- and eventual need for- standardized typologies of content. Thus far has been no other way to satisfy that need. What is needed is a rich typology sufficient to capture the diversity of possible content – was heavy work for legend pre-print/post-print articles- but simple enough for everyday use. This is a challenge, but one which would be welcomed by repository managers, as long as assigning the values is well integrated into the deposit process, which will call for technical development of the standard repository software and, of course, in-house development of any bespoke solutions. Proposals for standards in many areas come and go: adoption will take resource and managers need to be assured of the wide-spread buying and support of any proposed solution. The challenge for introducing them is three fold: the typology, the technical implementation and acceptance by repository staff of the proposal of the future standard solution."

The issues associated with the use of item types were also discussed with Paul Walk at UKOLN who commented as follows:

"Paul,

many thanks for your time explaining the approaches you have taken to metadata normalisation in IRUS-UK. I think that you have managed to hit the sweet-spot between maintaining the richness of the varied repositories' approaches to characterising items while introducing a well judged level of normalisation to arrive at a manageable but still useful set of item types.

I'm very interested in building on this approach for RIOXX/RepUK and will be in touch about this later on in the RIOXX project.

Paul"

The guidelines that RSP and IRS identified plus others already known to the IRUS-UK team or identified using an internet search were checked. Details were extracted and compared for the main guidelines applicable to UK institutional repositories and the results summarised (see below and appendices 1-6).

Additional guidelines were added in updating this report to version 3. The guidelines can now be found at appendices 1-7.

Interviews were conducted with IRUS-UK pioneer repository managers from EPrints, DSpace and Fedora repositories. Views were sought both about the use of item types in repositories generally and about the requirements for reporting within IRUS-UK.

The responses that we received, which confirmed a number of the issues above, will be written up and a distilled report made available later.

3 Policies and guidelines

There have been a number of projects relating to the deposit of items in institutional repositories over the last few years which have aimed to provide guidance of some form on the use of item types.

In addition, repository software products such as EPrints and DSpace provide guidance on item types.

Appendix 8 provides a table comparing the various guidelines listed below. It illustrates the variation in their proposed item types and also the inconsistencies in terminology and style.

Guidance is also available on version control for research outputs within institutional repositories and elsewhere. This is not of direct relevance to IRUS-UK (although it was to PIRUS) as version is effectively a sub-type of the item types for which IRUS-UK is gathering

data. However, versioning will have been adopted by some institutional repositories so the guidelines are included here for completeness.

3.1   Institutional repository software-specific guidelines

1. EPrints
2. DSpace
3. Fedora

For further details of these guidelines see Appendix 1.

3.2   CRIS guidelines

1. Symplectic
2. Converis
3. Pure

For further details of these guidelines see Appendix 2.

3.3   Jisc-funded guidelines

1. SWAP - Scholarly Works Application Profile (2006)
2. EThOS (2006)
3. IRIScotland (2008)
4. Kultur (2009)
5. Jisc infoKit Digital repositories (2010) (archived)
6. RIOXX application profile (2014)
7. Vocabularies for Open Access (V4OA)

For further details of these guidelines see Appendix 3.

3.4   EU-funded guidelines

1. DRIVER (Digital Repository Infrastructure Vision for European Research) Guidelines 2.0 Guidelines for content providers - exposing textual resources with OAI-PMH (November 2008)
2. OpenAIRE Guidelines for Literature Repositories 3.0 (2013)
3. OpenAIRE Guidelines for CRIS Managers based upon CERIF-XML (draft 2014)
4. CERIF - the Common European Research information Format 1.5

For further details of these guidelines see Appendix 4.

3.5 Other UK guidelines

1. REF2014 Output collection formats
2. RCUK Research Outcomes System (ROS)

For further details of these guidelines see Appendix 5.

3.6 International policies and guidelines

1. Bibliographic Ontology (BIBO)
2. Consortia Advancing Standards in Research Administration Information (CASRAI)
3. Schema.org

For further details of these guidelines see Appendix 6.

3.7 Versioning guidelines

1. Versions toolkit (February 2008)
2. Journal Article Versions (JAV): Recommendations of the NISO/ALPSP JAV Technical Working Group (April 2008)

Although not of direct relevance to IRUS-UK, the PIRUS2 project considered the versioning of articles to be included in COUNTER Article Level reports. In the PIRUS2 Final report (http://www.cranfieldlibrary.cranfield.ac.uk/pirus2/tiki-download_wiki_attachment.php?attId=170&download=y), it was recommended that of the NISO/ALPSP JAV Working Group recommendations:

"**include** Accepted Manuscript, Proof, Version of Record versions"

"**exclude** Authors Original and Submitted Manuscript Under Review versions".

For further details of these guidelines see Appendix 7.

4 Usage of item types in UK repositories

Information on actual use of item types in UK institutional repositories was taken from the Institutional Repository Search (IRS) (http://irs.mimas.ac.uk/) tool which searches across 130 UK academic repositories and thus has data on all item types actually used in these repositories. A total of 735 item types has been identified, many of which are very similar.

See Appendix 9 for the full listing.

The IRS team has done some very useful work on mapping these item types to a list of approximately 42 item types which can be used to filter IRS searches. This mapping was used as a basis for the proposed IRUS-UK item types list.

5 Proposals for usage of item types in IRUS-UK (versions 1 and 2)

A simplified version of the current IRS item type list is proposed for use in IRUS-UK. It aims to include the major item types that we are likely to encounter. We propose both an 'Other' heading for item types with few resources and an 'Unclassified' heading where the content of the item type field is not an obvious item type.

Version 1 of this report proposed that:

The IRUS-UK list will contain the following item types: Article; Audio; Book; Book Section; Conference or Workshop Item; Exam Paper; Exhibition; Image; Journal; Learning Object; Moving Image; Other; Patent; Preprint, Report; Review; Text; Thesis or Dissertation; Unclassified; Website; Working Paper.

Following feedback from the repository community, particularly in relation to creative outputs, additional item types were added and Exhibition was renamed Show/Exhibition, giving an updated list as follows:

The IRUS-UK list will contain the following item types: Art/Design Item; Article; Audio; Book; Book Section; Conference or Workshop Item; Dataset; Exam Paper; Image; Journal; Learning Object; Moving Image; Music/Musical Composition; Other; Patent; Performance; Preprint, Report; Review; Show/Exhibition; Text; Thesis or Dissertation; Unclassified; Website; Working Paper.

As the original item types are stored for each download, it will be possible to remap types to expand or amend this list over time.

6 Review of progress since version 2.0 of report was published

Now that the proposed item types have been used in IRUS-UK for a little over one year, the opportunity has been taken to review their usage and suitability, and also identify any new guidelines that have been published or which we have become aware of.

6.1 Guidelines

A number of different guidelines have been identified and added to this document, some of which refer specifically to institutional repositories and some of which refer more widely to research reporting and open access.

The following are the new guidelines that have been considered: Symplectic; Converis; IRIScotland; V4OA; OpenAIRE Guidelines for Literature Repositories 3.0 (2013) (replaces OpenAIRE Guidelines 1.1 – Guidelines for providers of the OpenAIRE information space (November 2010)); OpenAIRE Guidelines for CRIS Managers based upon CERIF-XML (draft 2014); CERIF; REF2014 Output collection formats; RCUK Research Outcomes System (ROS); Consortia Advancing Standards in Research Administration Information (CASRAI); Schema.org.

6.2 Item types in IRUS-UK

Appendix 10 lists actual usage of IRUS-UK item types by participating repositories from date of joining (earliest 5 July 2012) to April 2014 and Appendix 11 provides notes and comments on individual item types and their suitability going forward.

Feedback on the use of item types in IRUS-UK was also sought from the Community Advisory Group and many useful comments were received both on specific item types and on wider issues such as the requirements of REF and interoperability of item types between CRIS and IRs. It was also noted that in some cases, the item types used in repositories describe the form that the research output takes eg an exhibition, rather than the physical format of the item deposited in the repository which eg may be an image.

7 Updated proposals for usage of item types in IRUS-UK

Following both an examination of the new guidelines and their mapping to the current IRUS-UK item types (see Appendix 8) and an examination of the use of the IRUS-UK item types since their inception (see Appendices 10 and 11), it is proposed that we slightly modify the item types used by IRUS-UK to remove 'Journal' and 'Review' and to split 'Conference or Workshop Item' into three categories. Thus:

> **The IRUS-UK list will contain the following item types: Art/Design Item; Article; Audio; Book; Book Section; Conference Papers /Posters; Conference Proceedings; Conference or Workshop Item – Other; Dataset; Exam Paper; Image; Learning Object; Moving Image; Music/Musical Composition; Other; Patent; Performance; Preprint; Report; Show/Exhibition; Text; Thesis or Dissertation; Unknown; Website; Working Paper.**

As the original item types continue to be stored for each download, it will be possible to remap types to expand or amend this list over time.

In addition, we are starting a pending list of item types that we are considering for inclusion in the future if their usage becomes significant. We have been asked to consider the inclusion of 'Code' as an item type. None of our current participants uses that but some use the term 'Software' so we have added this to our pending list.

Appendix 1 - Institutional repository software-specific guidelines

EPrints

http://www.eprints.org/software/training/configuration/configuration_exercises.pdf
[Accessed 18 August 2014]

Default deposit types for users of EPrints software are: Article, Book, Book Section, Conference Item, Monograph, Patent, Thesis, Artefact, Exhibition, Composition, Performance, Image, Video, Audio, Dataset, Experiment, Teaching Resource and Other.

Institutions using EPrints software may choose to extend or reduce this default list.

DSpace

DSpace (http://www.dspace.org/) uses qualified Dublin Core which recommends using a controlled vocabulary such as the DCMI Type Vocabulary [DCMITYPE] http://dublincore.org/documents/dcmi-terms/ [Accessed 18 August 2014]

The DCMITYPE Vocabulary includes the following types: Collection, Dataset, Event, Image, InteractiveResource, MovingImage, PhysicalObject, Service, Software, Sound, StillImage, Text.

Fedora

Fedora states that it can be used for many kinds of digital content including documents, images, electronic books, multi-media learning objects, datasets, metadata and many others. It does not provided defined item type templates or item types but rather leaves it to the implementing repository to define their own item type templates.

Appendix 2 - CRIS guidelines

Symplectic

Email from Graham Triggs 19/05/14

Symplectic ship with a default list of item types as listed below. In addition, clients may choose to create custom item types to meet local requirements.

Books; Chapters; Datasets; Conferences; Journal articles; Patents; Reports; Software; Performances; Compositions; Designs; Artefacts; Exhibitions; Other; Internet publications; Scholarly editions; Posters; Theses / Dissertations

Converis

Email from Thorsten Höllrigl 20/05/14

Converis ship with a default list of the CERIF item types as listed below, but these can be adapted or expanded for regional requirements, eg for REF.

Publicationtype	Definition
Book	A collection of leaves of paper, parchment, vellum, cloth, or other material (written, printed, or blank) fastened together along one edge, with or without a protective case or cover.
Book Review	An evaluative account of a recent book, usually written and signed by a qualified person, for publication in a current newspaper, magazine, or journal.
Book Chapter Abstract	A brief, objective representation of the essential content of a book chapter, presenting the main points in the same order as the original but having no independent literary value.
Book Chapter Review	An evaluative account of a recent book chapter, usually written and signed by a qualified person, for publication in a current newspaper, magazine, or journal.
Inbook	A part of a book, usually untitled. May be a chapter (or section or whatever) and/or a

	range of pages.
Anthology	A collection of extracts or complete works by various authors, selected by an editor for publication in a single volume or multivolume set. Anthologies are often limited to a specific literary form or genre (short stories, poetry, plays) or to a national literature, theme, time period, or category of author.
Monograph	A relatively short book or treatise on a single subject, complete in one physical piece, usually written by a specialist in the field. Monographic treatment is detailed and scholarly but not extensive in scope.
Referencebook	A book designed to be consulted when authoritative information is needed, rather than read cover to cover. Reference books often consist of a series of signed or unsigned "entries" listed alphabetically under headwords or headings, or in some other arrangement (classified, numeric, etc.).
Textbook	An edition of a book specifically intended for the use of students who are enrolled in a course of study or preparing for an examination on a subject or in an academic discipline, as distinct from the trade edition of the same title. Also refers to the standard work used for a specific course of study, whether published in special edition or not.
Encyclopedia	A book or numbered set of books containing authoritative summary information about a variety of topics in the form of short essays, usually arranged alphabetically by headword or classified in some manner. An entry may be signed or unsigned, with or without illustration or a list of references for further reading. Headwords and text are usually revised periodically for publication in a new edition.

Manual	refers to a book or pamphlet containing practical instructions, rules, or steps for performing a task or operation, assembling a manufactured object, or using a system or piece of equipment. Used synonymously with handbook.
Otherbook	Uncertain of definition – originates from BibTex
Journal	A periodical devoted to disseminating original research and commentary on current developments in a specific discipline, subdiscipline, or field of study (example: Journal of Clinical Epidemiology), usually published in quarterly, bimonthly, or monthly issues sold by subscription (click here to see an example). Journal articles are usually written by the person (or persons) who conducted the research.
Journal Article	A self-contained nonfiction prose composition on a fairly narrow topic or subject, written by one or more authors and published under a separate title in a collection or periodical containing other works of the same form.
Journal Article Abstract	A brief, objective representation of the essential content of an article, presenting the main points in the same order as the original but having no independent literary value.
Journal Article Review	An evaluative account of a recent of a newly published literary or scholarly work, usually written and signed by a qualified person, for publication in a current newspaper, magazine, or journal.
Conference Proceedings	A proceeding is a collection of articles, published abstracts or posters gathered from a conference. Can have several editors.
Conference Proceedings Article	Articles that has been presented at a conference. Articles has been collected and published in a proceeding.

Letter	A letter (also known as "communication") is a brief description of important new research.
Letter to Editor	A letter, usually printed at the discretion of the publisher on the editorial page of a newspaper or magazine, in which a reader expresses his or her views on the subject of a previously published article or editorial, or on the editorial policy of the publication in general, sometimes followed by a brief response from the editor(s).
PhD Thesis	Dissertation/Thesis that leads to the acquirement of a Ph.D. Degree.
Doctoral Thesis	Dissertation/Thesis that leads to the acquirement of a doctoral degree.
Report	A separately published record of research findings, research still in progress, or other technical findings, usually bearing a report number and sometimes a grant number assigned by the funding agency.
Short Communication	A short communication is a concise, but independent report representing a significant contribution to a subject.
Poster	A visual presentation of an academic subject presented at a conference.
Presentation	
Newsclipping	An article published in a newspaper, newsmagazine, or online news service, reporting the details of a current event or the latest information on a topic of general interest. News stories are usually short and often unattributed.
Commentary	A written explanation or criticism or illustration that is added to a book or other textual material.
Annotation	A brief note, usually no longer than two or three sentences, added after a citation in a bibliography to describe or explain the content or message of the work cited or to comment on it.

Pure

At the time of writing we are still awaiting a response from Atira/Pure.

Appendix 3 - Jisc-funded guidelines

SWAP - Scholarly Works Application Profile (2006)

http://www.ukoln.ac.uk/repositories/digirep/index/Scholarly_Works_Application_Profile
[Accessed 18 August 2014]

A Dublin Core Application Profile for describing scholarly works (eprints) held in institutional repositories was developed by a Jisc working group within the Jisc Digital Repositories programme in 2006.

The profile recommended the use of an item type from the EPrints Type Vocabulary Encoding Scheme (http://www.ukoln.ac.uk/repositories/digirep/index/Eprints_Type_Vocabulary_Encoding_Scheme [Accessed 18 August 2014]), as given below.

Label	Definition
Scholarly Text	A scholarly text that is primarily words for reading. Where the text is one of the more specific types listed here, use the more specific term.
Book	A non-serial publication that is complete in one volume or a designated finite number of volumes. In physical form, a book is a collection of sheets of paper, parchment or other material bound together along one edge within covers. Books are often identified with an ISBN.
Book Item	A defined chapter or section of a book, usually with a separate title or number.
Book Review	A review of a book.
Conference Item	A contribution to a conference, workshop or other event. Where the contribution is a paper or poster, use Conference Paper or Conference Poster as appropriate.
Conference Paper	A paper submitted and/or presented at a conference, workshop or other event.
Conference Poster	A poster submitted and/or presented at a conference, workshop or other event.
Journal Item	A contribution to a journal, e.g. an article,

	editorial, conference report, debate, letter or response. Where the contribution is an article, use Journal Article.
Journal Article	An article or paper published in a journal. For book reviews, use Book Review. For news items use News Item. For other types of contribution use Journal Item.
News Item	A news item.
Patent	A patent or patent application.
Report	A research, statistical or technical report issued by an institution, agency, government body or other organisation.
Submitted Journal Article	The author's original manuscript as submitted to and/or accepted by a journal. In the terminology recommended by the [Sherpa project], a submission prior to peer review is a preprint; a submission after peer review is a postprint. Therefore, a Submitted Journal Article can be either a preprint or a postprint. For the version of the article published by the journal, use Journal Article.
Thesis or Dissertation	A thesis or dissertation submitted in completion of a course of study at an institution of higher education.
Working or Discussion Paper	A working or discussion paper circulated publicly or among a group of peers. Certain disciplines, for example economics, issue working papers in series. Working or discussion papers may form the basis for a Journal Article or Conference Paper.

EThOS (2006)

http://ethostoolkit.cranfield.ac.uk/ [30 January 2013]

EThOS was a Jisc-funded project instrumental in delivering the British Library's EThOS Service - enabling users to search a central database of UK theses and to download the full text of the selected items in secure format and in the form intended by the authors.

The project developed a UKETD application profile (http://ethostoolkit.cranfield.ac.uk/tiki-index.php?page=The+EThOS+UKETD_DC+application+profile), described in the EThOS Toolkit, which recommended a core set of metadata for theses and dissertations, including the use of the term 'Thesis' as a standard type for theses.

IRIScotland (2008)

http://cdlr.strath.ac.uk/pubs/dawsona/IRISMetadataDraft.pdf [Accessed 18 August 2014]

The IRIScotland project aimed to "provide the organisational and technological framework for a Scotland-wide institutional repository infrastructure for research".

It produced the following document: "Draft IRIScotland metadata agreement: standards and guidelines for institutional repositories (June 2007)". It recommended the use of the labels from the Eprints type vocabulary encoding scheme from the Scholarly works application profile (http://www.ukoln.ac.uk/repositories/digirep/index/Eprints_Type_Vocabulary_Encoding_Scheme):

Book; Book Item; Book Review; Conference Item; Conference Paper; Conference Poster; Journal Article; Journal Item; News Item; Patent; Report; Scholarly Text; Submitted Journal Article; Thesis or Dissertation; Working or Discussion Paper.

However, the guidelines recognised that this had a narrower scope than IRIScotland and may need augmenting to cover other types of items such as research data.

Kultur (2009)

http://kultur.eprints.org/Metadata%20report%20Final.pdf [Accessed 18 August 2014]

Kultur was a Jisc-funded project which ran from 2007-2009 and which created a model of an institutional repository for use in the creative and applied arts. It developed metadata to describe non-text objects "including a greater requirement to describe physical items, to describe multiple items/documents within a single record, to document roles in collaborations, and to record objects and events within the same set of metadata".

In phase 2 of the project an expansion of the default EPrints item types list was used which replaced 'Artefact' with the following list: Animation; Architecture; Audio work; Book art/Artist's book; Ceramics; Conservation work; Craft; Curation; 2D Design; 3D Design; Digital art; Drawing; Exhibition/show; Fashion; Film; Illustration; Installation; Painting; Performance; Photography; Printmaking; Public art; Sculpture; Site-specific work; Sound art; Teaching; Textiles; Theatre; Typography; Video; Other.

This list was subsequently moved to a category field and the final metadata recommendations offer three types: Art/Design item; Show/Exhibition; Performance.

Jisc infoKit Digital repositories (2010) (archived)

http://www.jiscinfonet.ac.uk/infokits/repositories/content-types [16 August 2012]

http://tools.jiscinfonet.ac.uk/downloads/repositories/digital-repositories.pdf [Accessed 18 August 2014]

The infoKit is now available at http://www.jiscinfonet.ac.uk/infokits/digital-repositories/. [Accessed 18 August 2014]

The Digital repositories infoKit was one of a collection of infoKits from Jisc. The infoKit was archived in the course of the production of version 2 of this document. It provides two lists of content types for digital repositories: the first lists the most common content types in repositories as identified by OpenDOAR (List 1).

- Journal articles
- Bibliographic references (metadata only)
- Books, sections and chapters
- Conference and workshop papers
- Theses and Dissertations
- Unpublished reports & working papers
- Datasets
- Content-packaged learning objects
- Multimedia and audio-visual materials
- Software
- Patents
- Other special items

The second list, adapted from the default content type list provided with EPrints software, offers a starting point to seek to clarify item types (List 2).

Publications

- **Articles** - Articles in journals, magazines, newspapers. Not necessarily peer-reviewed. May be an electronic-only medium, such as an online journal or news website
- **Books** - Complete books or conference volumes
- **Book Sections** - Separately-authored chapters or sections in books
- **Conference or Workshop Items** - Papers, posters, speeches, lectures or presentations given at a conference, workshop or other event. If the conference

item has been published in a journal or book then please use 'Book Section' or 'Article' instead

Theses & Dissertations

Student theses and dissertations submitted to an institution as part of the requirements for a degree, including:

- **Doctoral Theses** - PhD
- **Masters Theses & Dissertations** - MSc, MA, MBA, etc
- **Bachelors Dissertations** - BSc, BA, etc

Resources used to support teaching and learning

- **Curricula and syllabuses**
- **Course validation documents**
- **Course materials** - learning resources, lecture notes, learning exercises
- **Assessment materials** - tests, exam papers
- **Study skills, support and revision materials**
- **Student-produced work** (including all the content types listed here)

Audio Visual Items

- **Images** - Digital photographs or visual images
- **Video** - Digital video
- **Audio** - Sound recordings
- **Show/Exhibition** - An artist's exhibition or site-specific performance-based deposit
- **Artefact** - An artist's artefact or work product. Could also apply to archaeological finds
- **Performance** - Performance of a musical event
- **Composition** - A musical composition

Data

- **Datasets** - Bounded collections of quantitative data (e.g. spreadsheet or XML data file)
- **Experiment** - Experimental data with intermediate analyses and summary results

Grey Literature

- **Patents** - A published patent. As-yet unpublished patent applications should never be included in a repository, because to do so might disqualify the application

The following are grouped together by EPrints as Monographs, although many people use 'monograph' as a synonym for 'book'

- **Technical Reports**
- **Project Reports**
- **Documentation & Manuals**
- **Working Papers & Discussion Papers**

Other

Something within the scope of the repository, but not covered by the other categories.

RIOXX application profile (2014)

http://rioxx.net/v2-0-beta-1/ [Accessed 18 August 2014]

Consultation on the beta version of RIOXX 2.0 closed on 16th July 2014. The profile may be revised in response to feedback received before the final version is published.

The profile includes the mandatory field rioxxterms:type with the following controlled list of terms:

- Book
- Book chapter
- Book edited
- Conference Paper/Proceeding/Abstract
- Journal Article/Review
- Manual/Guide
- Monograph
- Policy briefing report
- Technical Report
- Technical Standard
- Thesis
- Other
- Consultancy Report
- Working paper

The profile states "RIOXX 2.0 is specifically focussed on describing open access publications. It allows linking to other open access outputs types (such as research data sets for example), but does not describe these." As such, it is not applicable to all the item types included in institutional repositories. When the profile is implemented by participating repositories,

IRUS-UK will be able to display mappings to these item types in addition to the agreed list of IRUS-UK mappings.

Vocabularies for Open Access (V4OA)

http://www.jisc.ac.uk/whatwedo/topics/digitallibraries/pals-group/v4oa.aspx [Accessed 18 August 2014]

http://v4oa.net/ [18 August 2014]

"The aim of the work is to establish an ongoing process by which agreements can be reached on which standard vocabularies will be used in particular circumstances in the OA context, and to create a Web resource to act as a focal point for these agreements."

The public consultation paper, issued in September 2013, states that the project will initially focus on four key areas of metadata: embargo periods; the legal rights of organisations or authors; whether an organisation or individual has paid for an item to be published on an Open Access basis; and, metadata that asserts whether or not an item is currently free to read online.

This project has been included here for completeness but is currently not directly relevant to IRUS-UK.

Appendix 4 – EU-funded guidelines

DRIVER (Digital Repository Infrastructure Vision for European Research) Guidelines 2.0

Guidelines for content providers - exposing textual resources with OAI-PMH (November 2008)

http://www.driver-support.eu/documents/DRIVER_Guidelines_v2_Final_2008-11-13.pdf
[Accessed 18 August 2014]

The DRIVER guidelines are "an instrument to map (or translate) the metadata used in the repository to the Dublin Core metadata as harvested by DRIVER".

Their publication types are "a combination of the types DARE uses from DC guidelines, types listed in the DINI certificate and the e-Prints publication types (http://www.ukoln.ac.uk/repositories/digirep/index/Eprints_Type_Vocabulary_Encoding_Scheme). Based on these authoritative guidelines, improved guidelines have been made for DRIVER in "Use of MODS for institutional repositories" which is in line with publication types used by commons Current Research Information Systems (CRIS) like METIS."

info:eu-repo/semantics/	Version allowed	Description
article	accepted / published / updated	Article or an editorial published in a journal
bachelorThesis	accepted / published / updated	Lowest level of a thesis (normally after three years of study). See also http://en.wikipedia.org/wiki/Diplom
masterThesis	accepted / published / updated	Intermediate level of a thesis (normally after four or five years of study). See also http://en.wikipedia.org/wiki/Diplom This also refers to theses of the pre-Bologna period for degrees that are at the same level as what now is known as a master degree.
doctoralThesis	accepted / published / updated	Highest level of a thesis normally after more than four or five years of study. See also http://en.wikipedia.org/wiki/Diplom Also everything equal and higher

		then a Doctoral thesis, that does not follow the "Bologna Convention", will be put in the category doctoralThesis. A free text field will Provide the opportunity to specify this further.
book	accepted / published / updated	Book or monograph
bookPart	accepted / published / updated	Part or chapter of a book
review	draft / submitted / accepted / published / updated	Review of a book or article
conferenceObject	draft / submitted / accepted / published / updated	All kind of documents related to a conference, p.e. conference papers, conference reports, conference lecture, papers published in conference proceedings, conference contributions, reports of abstracts of conference papers and conference posters.
lecture	draft / submitted / accepted / published / updated	Lecture or presentation presented during an academic event, e.g., inaugural lecture. Excluded is a conference lecture (see conferenceItem).
workingPaper	draft / submitted	a preliminary scientific or technical paper that is published in a series of the institution where the research is done. Also known as research paper, research memorandum or discussion paper. The difference with a preprint is that a workingPaper is published in a institutional series. Examples are: working papers, research papers, research memoranda and discussion papers.
preprint	draft / submitted	like a workingPaper this is a preliminary scientific or technical paper, **but it is not published in a**

		institutional series. The paper is intended to be published in a scientific journal or as a chapter in a book.
report	draft / submitted / accepted / published / updated	This is a more or less a rest category and covers commission reports, memoranda, external research reports, internal reports, statistical report, reports to funding agency, technical documentation, project deliverables etc. Excluded are conference reports (See conferenceItem).
annotation	draft / submitted / accepted / published / updated	Note to a legal judgment
contributionToPeriodical	draft / submitted / accepted / published / updated	Contribution to a newspaper, weekly magazine or another non-academic periodical
patent	draft / submitted / accepted / published / updated	Patent
other	draft / submitted / accepted / published / updated	Especially meant for non-publication data like research data, audio-visual materials, animations etc.

OpenAIRE Guidelines for Literature Repositories 3.0 (2013)

https://guidelines.openaire.eu/wiki/OpenAIRE_Guidelines:_For_Literature_repositories
[Accessed 18 August 2014]

The use of info:eu-repo/semantics is recommended by the OpenAIRE Guidelines.

https://wiki.surfnet.nl/display/standards/info-eu-repo#info-eu-repo-Publicationtypes
[Accessed 18 August 2014]

Term	Description	Used by project*
article	article or an editorial published in a journal. (ed. Should this be specified specifically as an Scholarly	DRIVER SURF

	article? Or does this list of publication types define a scholarly context by default?)	NEEO
bachelorThesis	lowest level of a thesis (normally after three years of study). See also http://en.wikipedia.org/wiki/Diplom	DRIVER SURF
masterThesis	intermediate level of a thesis (normally after four or five years of study). See also http://en.wikipedia.org/wiki/DiplomThis also refers to theses of the pre-Bologna period for degrees that are at the same level as what now is known as a master degree	DRIVER SURF
doctoralThesis	highest level of a thesis normally after more than four or five years of study. See also http://en.wikipedia.org/wiki/DiplomAlso everything equal and higher then a Doctoral thesis, that does not follow the "Bologna Convention", will be put in the category doctoralThesis. A free text field will Provide the opportunity to specify this further	DRIVER SURF
book	book or monograph	DRIVER SURF
bookPart	part or chapter of a book	DRIVER SURF
review	review of a book or article	DRIVER
conferenceObject	all kind of documents related to a conference, p.e. conference papers, conference reports, conference lecture, papers published in conference proceedings, conference contributions, reports of abstracts of conference papers and conference posters	DRIVER
lecture	lecture or presentation presented during an academic event, e.g., inaugural lecture. Excluded is a conference lecture (see conferenceItem)	DRIVER SURF
workingPaper	a preliminary scientific or technical paper that is published in a series of the institution where the research is done. Also known as research paper, research memorandum or discussion paper. The difference with a preprint is that a workingPaper is published in a institutional series. Examples are: working papers, research papers, research memoranda and discussion papers	DRIVER SURF
preprint	like a workingPaper this is a preliminary scientific or technical paper, but it is not published in a	DRIVER SURF

	institutional series**.** The paper is intended to be published in a scientific journal or as a chapter in a book	
report	this is a more or less a rest category and covers commission reports, memoranda, external research reports, internal reports, statistical report, reports to funding agency, technical documentation, project deliverables etc. Excluded are conference reports (See conferenceItem)	DRIVER SURF
annotation	note to a legal judgment	DRIVER SURF
contributionToPeriodical	contribution to a newspaper, weekly magazine or another non-academic periodical	DRIVER SURF
patent	patent	DRIVER SURF
other	especially meant for non-publication data like research data, audio-visual materials, animations etc.	DRIVER
conferenceObject	All kinds of documents related to a conference, e.g., conference papers, conference reports, conference lecture, papers published in conference proceedings, conference proceedings, conference contributions, reports of abstracts of conference papers and conference posters	DRIVER
reportPart	part of a report	SURF
bookReview	book review	SURF
conferencePaper	paper published in conference proceedings	SURF
researchProposal	documentation for grant request	SURF
studentThesis	this refers to theses of the pre-Bologna period for degrees that are at the same level as what now is known as a master degree	SURF
technicalDocumentation	technical documentation	SURF
conferencePaper	paper published in conference proceedings	NEEO
conferencePoster	poster presented at a conference	NEEO
conferenceProceedings	the conference proceedings	NEEO
conferenceContribution	contribution to a conference but not published in a conference	NEEO
conferencePaper	paper published in conference proceedings	DARE
ConferenceItem	contribution to a conference but not published in a conference	UKOLN

ConferencePaper	contribution to a conference but not published in a conference	UKOLN
ConferencePoster	contribution to a conference but not published in a conference	UKOLN

conferenceObject of Driver includes all other conference-related publications. This can be used if none of the more specific publication types comply.

Within conferenceObject are two types: conferenceProceedings as proposed by NEOO and ConferenceItem from the vocabulary of UKOLN. The type conferenceProceedings is used for authors who want to include the conference proceedings of which they are the editor. It is helpful if conference proceedings are contained in the repositories as compound objects. ConferenceItem is not really necessary, because there are more specific types who cover all sorts of ConferenceItems: ConferencePaper and conferenceContribution. The distinction between these two subtypes is the whether or not it's included in conference proceedings. conferenceContribution has a subtype: conferencePoster. Not published readings for a conference are a conferenceObject, a ConferenceItem and a ConferenceContribution.

The class-subclass relations can be represented with the following hierarchy.

 conferenceObject

   conferenceProceedings

   ConferenceItem

     conferencePaper = ConferenceItem in conferenceProceedings

     conferenceContribution = ConferenceItem not in conferenceProceedings

       conferencePoster

The term conferenceContribution is confusing. A more clear term is concerenteItemNotInProceedings. The proposal is to adopt conferenceObject, conferenceProceedings, conferencePaper, conferenceItemNotInProceedings, conferenceContribution (owl:sameAs conferenceNotInProceedings; the latter is the preferred term) and conferencePoster in the info:eu-repo/semantics namespace. If we specify in a more formal way the semantic relations, we can use ConferenceItem from the UKOLN vocabulary.

* Projects used for input to info:eu-repo/semantics:

[DRIVER Guidelines](#) (DRIVER)

Project SamenInDelen (SamenInDelen)

NEEO Technical guidelines (NEEO)

Use of MODS for institutional repositories (SURFshare)

OpenAIRE Guidelines for CRIS Managers based upon CERIF-XML (draft 2014)

https://guidelines.openaire.eu/wiki/OpenAIRE_Guidelines:_For_CRIS [Accessed 18 August 2014]

These guidelines provide the following controlled vocabulary for publication types as defined in CERIF Semantics "Output Types" scheme:

Book; Book Review; Book Chapter Abstract; Book Chapter Review; Inbook; Anthology; Monograph; Referencebook; Textbook; Encyclopedia; Manual; Otherbook; Journal; Journal Issue; Journal Article; Journal Article Abstract; Journal Article Review; Conference Proceedings; Conference Proceedings Article; Conference Abstract; Conference Poster; Letter; Letter to Editor; PhD Thesis; Doctoral Thesis; Supervised Student Publications; Report; Short Communication; Poster; Presentation; Newsclipping; Commentary; Annotation; Transliteration; Translation; Authored Book; Edited Book; Chapter in Book; Scholarly Edition; Conference Contribution; Working Paper; Research Report for external body; Confidential Report (for external body); Encyclopedia Entry; Magazine Article; Dictionary Entry; Online Resource; Standard and Policy

CERIF - the Common European Research Information Format 1.5

CERIF is a conceptual model describing the research domain. The CERIF model was recommended by the European Commission in 1991 and 2000. In 2002, responsibility for CERIF activities was entrusted to euroCRIS: The European Organisation for International Research Information.

The CERIF vocabulary includes a large number of terms split into various classes. They include the following output types:

cfClassification Term	cfClassificationDefinition
Book	A book is a collection of leaves of paper, parchment, vellum, cloth, or other material (written, printed, or blank) fastened together along one edge, with or without a protective case or cover.

Book Review	A book review is an evaluative account of a recent book, usually written and signed by a qualified person, for publication in a current newspaper, magazine, or journal.
Book Chapter Abstract	A book chapter abstract is a brief, objective representation of the essential content of a book chapter, presenting the main points in the same order as the original but having no independent literary value.
Book Chapter Review	A book chapter review is an evaluative account of a recent book chapter, usually written and signed by a qualified person, for publication in a current newspaper, magazine, or journal.
Inbook	An inbook is a part of a book, usually untitled. May be a chapter (or section or whatever) and/or a range of pages.
Anthology	An anthology is a collection of extracts or complete works by various authors, selected by an editor for publication in a single volume or multivolume set. Anthologies are often limited to a specific literary form or genre (short stories, poetry, plays) or to a national literature, theme, time period, or category of author.
Monograph	A monograph is a relatively short book or treatise on a single subject, complete in one physical piece, usually written by a specialist in the field. Monographic treatment is detailed and scholarly but not extensive in scope.
Referencebook	A referencebook is a book designed to be consulted when authoritative information is needed, rather than read cover to cover. Reference books often consist of a series of signed or unsigned "entries" listed alphabetically under headwords or headings, or in some other arrangement (classified, numeric, etc.).

Textbook	A textbook is an edition of a book specifically intended for the use of students who are enrolled in a course of study or preparing for an examination on a subject or in an academic discipline, as distinct from the trade edition of the same title. Also refers to the standard work used for a specific course of study, whether published in special edition or not.
Encyclopedia	An enyclopedia is a book or numbered set of books containing authoritative summary information about a variety of topics in the form of short essays, usually arranged alphabetically by headword or classified in some manner. An entry may be signed or unsigned, with or without illustration or a list of references for further reading. Headwords and text are usually revised periodically for publication in a new edition.
Manual	A manual refers to a book or pamphlet containing practical instructions, rules, or steps for performing a task or operation, assembling a manufactured object, or using a system or piece of equipment. Used synonymously with handbook (ODLIS Dictionary). A manual is a book that tells you how to do or operate something, especially one that comes with a machine (Grey Literature Typology.
Otherbook	Uncertain of definition
Journal	A journal is a periodical devoted to disseminating original research and commentary on current developments in a specific discipline, subdiscipline, or field of study (example: Journal of Clinical Epidemiology), usually published in quarterly, bimonthly, or monthly issues sold by subscription (click here to see an example). Journal articles are usually written by the person (or persons) who conducted the research.

Journal Article	A journal article is a self-contained nonfiction prose composition on a fairly narrow topic or subject, written by one or more authors and published under a separate title in a collection or periodical containing other works of the same form.
Journal Article Abstract	A journal article abstract is a brief, objective representation of the essential content of an article, presenting the main points in the same order as the original but having no independent literary value.
Journal Article Review	A journal article review is an evaluative account of a recent of a newly published literary or scholarly work, usually written and signed by a qualified person, for publication in a current newspaper, magazine, or journal.
Conference Proceedings	A conference proceeding is a collection of articles, published abstracts or posters gathered from a conference. Can have several editors.
Conference Proceedings Article	A conference proceedings article is an article that has been presented at a conference. Articles has been collected and published in a proceeding.
Letter	A letter (also known as "communication") is a brief description of important new research.
Letter to Editor	A letter, usually printed at the discretion of the publisher on the editorial page of a newspaper or magazine, in which a reader expresses his or her views on the subject of a previously published article or editorial, or on the editorial policy of the publication in general, sometimes followed by a brief response from the editor(s).
PhD Thesis	A PhD Thesis, is a Dissertation/Thesis that leads to the acquirement of a Ph.D. Degree.
Doctoral Thesis	A Doctoral Thesis is a Dissertation/Thesis that leads to the acquirement of a doctoral degree.
Report	A report is a separately published record of research findings, research still in progress, or other technical findings, usually bearing a report number and sometimes a grant number assigned by the funding agency.

Short Communication	A short communication is a concise, but independent report representing a significant contribution to a subject.
Poster	A poster is a visual presentation of an academic subject presented at a conference.
Presentation	Uncertain of definition
Newsclipping	A newsclipping is an article published in a newspaper, newsmagazine, or online news service, reporting the details of a current event or the latest information on a topic of general interest. News stories are usually short and often unattributed.
Commentary	A commentary is a written explanation or criticism or illustration that is added to a book or other textual material.
Annotation	
Transliteration	
Translation	Translations of books and articles that identify modifications to the original edition, such as a new or revised preface.
Authored Book	Books written by a single author or collaboratively based on research or scholarly findings generally derived from peer reviewed funding.
Edited Book	Books edited by a single author or collaboratively for the dissemination of research or scholarly findings that generally result from peer reviewed funding.
Chapter in Book	Texts written by a single author or collaboratively based on research or scholarly findings and expertise in a field.
Scholarly Edition	A scholarly edition of a text is an edition that is reliable and useful for scholarly purposes. In order to fulfil such purposes, a scholarly edition must live up to high standards.
Conference Contribution	
Working Paper	Preliminary versions of articles that have not undergone review but that may be shared for comment.
Artefact	
Devices and products	

Performance	Collection of information records that, in combination, represent a full and up-to-date history of artistic or performance outputs resulting from, or related to, the person's research or scholarly activities. Works may be produced alone or collaboratively as a creative practice that lead to production and dissemination.
Exhibition	Showings of works of art under the direction of a curator, an artist or as a graduation exhibition.
Patent / published patent application	
Composition	
Design	
Research report for external body.	
Confidential Report (for external body).	
Software	Software is a generic term for computer programs and their associated documentation, as opposed to data used as input and generated as output.
Website content	Stand-alone locations on the web where multiple types of information on a specific theme are available. May include interactive features for contributions from readers.
Digital or visual media	
Research data sets and databases	A series of structured observations, measurements or facts identified from the research which can be stored in a database medium.
Other	
Journal Issue	Periodical publications aimed at fostering intellectual debate and inquiry. Special journal issues are produced by editors with an established record of scholarship in the field and able to provide the direction of the theme. Journal issues bear a unique number of reference for publication.

Supervised Student Publications	Articles on research findings published jointly with or supervised by the thesis advisor. The findings relate to research undertaken by the student or the supervisor's program of research.
Encyclopedia Entry	Authored entries in a reference work or a compendium focusing on a particular domain or on all branches of knowledge.
Magazine Article	Articles in thematic publications published at fixed intervals.
Dictionary Entry	Entries of new words, new meanings of existing words, changes in spelling and hyphenation over a longer period of time, and grammatical changes.
Research Tool	Series of observations, measurements or facts identified from the research. They include bibliographies, indices and catalogues of research collections; concordances and dictionaries; materials that facilitate access to archival holdings or collections such as repository guides, inventories of a group of manuscripts or of a body of archives, inventories or documentary materials, thematic guides to archival materials, records surveys and special indices; scholarly editions; and data series.
Online Resource	Information accessible only on the web via traditional technical methods (ie hyperlinks).
Test	Assessments that include tests designed for general university selection, selection into specific courses or other evaluation purposes.
Conference Abstract	Texts of a specified length that states the issue to be discussed in a proposed conference paper. It serves as the basis for the acceptance of the paper at a conference. The abstract is published along with the paper.
Conference Poster	Posters displayed in a conference setting and conveying research highlights in an efficient manner by compelling graphics. They may be peer-reviewed prior to acceptance and be published in the proceedings.
Musical Composition	Original musical scores available in a format for

	dissemination.
Musical Performance	Original musical scores available in a format for dissemination.
Radio/TV Program	Programming produced for and broadcast on radio or TV.
Script	Written versions of a play, film, broadcast or other dramatic composition used in preparing for a performance and annotated with instructions for the performance.
Short Fiction	Original literary texts (prose or poetry).
Theatric	Creation, production, dissemination of plays by professional theatre artists and organizations. The artifacts, such costumes, props, sets and scripts, may be the object of a public exhibit.
Video Recording	Works such as film, video, or new media developed as a result of an artistic practice. May serve for commercial purposes.
Visual Artwork	Works such as film, video, or new media developed as a result of an artistic practice. May serve for commercial purposes.
Sound Design	Art and process of manipulating audio elements to achieve a desired effect. It is employed in a variety of disciplines including film, theatre, music recording, and live music performance. It involves the manipulation of previously composed audio or the creative composition of new audio.
Set Design	Creations of theatrical, as well as film or television scenery (also known as stage design, scenic design or production design).
Light Design	Works done within theatre or in relation to an art installation to design a production.
Choreography	Dance compositions created for production and dissemination.
Curatorial/Museum Exhibitions	Collection of information records that, in combination, represent a full and up-to-date history of the intellectual property owned by the person and resulting from, or related to, the person's research activities.

Intellectual Property	Collection of information records that, in combination, represent a full and up-to-date history of the intellectual property owned by the person and resulting from, or related to, the person's research activities.
License	Signed agreements to exploit a piece of IP such as a process, product, data, or software.
Disclosure	Publications that establish inventions as prior art thereby preventing others from patenting the same invention or concept.
Registered Copyright	Registered ownership of rights under a system of laws for promoting both the creation of and access to artistic, literary, musical, dramatic and other creative works.
Trademark	Marks such as a name, word, phrase, logo, symbol, design, image of a product or service that indicates the source and provides the right to control the use of the identifier.
Standard and Policy	The development of a rule or principle that is used as a basis for judgement.
Technical Standard	Technical Standards (industrial or otherwise) that have originated from the research projects in which new protocols, methods or materials may be developed.
Research Techniques	A practical methods or skills applied to particular tasks identified as part of the research.
Invention	Practical and original outputs arising from research.
Litigation	The act or process of contesting at law.

Appendix 5 - Other UK guidelines

REF2014 Output collection formats

http://www.ref.ac.uk/media/ref/content/submissions/outputguidance/REF2014%20output%20collection%20formats%20guidance.docx [Accessed 18 August 2014]

The following outputs are defined as part of the REF2014 Research Excellence Framework submission process: (Parts of) Books (Authored book; Edited book; Chapter in book; Scholarly edition); Journal articles (Journal article; Conference contribution; Working paper); Physical artefacts (Artefact; Devices and products); Exhibitions and performances (Exhibition; Performance); Other documents (Patent/ published patent application; Composition; Design; Research report for external body; Confidential report for external body); Digital artefacts (Software; Website content; Digital or visual media; Research datasets and databases); Other.

RCUK Research Outcomes System (ROS)

http://www.esrc.ac.uk/_images/Output_types_on_ROS_tcm8-14587.pdf [Accessed 18 August 2014]

The following output types can be used when uploading research outputs via the RCUK Research Outcomes System (ROS):

Book (Book; Book chapter)

Journal (Journal article; Journal issue; Review)

Conference (Conference paper; Conference proceedings)

Report (Technical report; Consultancy report; Annual report; Other report)

Other (Thesis; Technical standard; Working paper; Other publication; Guide; Manual; Pamphlet; Booklet; Bulletin Article; Newsletter; Newspaper; Occasional paper; Discussion paper)

Electronic (Dataset; Software; Website; Broadcast; Podcast; Video; DVD; CDROM; Algorithm; Computer model; E-business platform; Grid application; Other)

Collaboration/Partnership (Collaboration/Partnership; Board/Council/Panel; Committee; Networks)

Further funding (Further funding)

Staff development (Staff development; Training course)

Dissemination/Communication (Dissemination/Communication; Lecture; Seminar/Workshop; Organised event)

IP and exploitation; (Intellectual Property; Exploitation mechanism)

Award/Recognition (Degree/Other honour)

Impact (Summary of impact; Policy influence; Impact report; Full research report; Research summary)

Appendix 6 - International guidelines

Bibliographic Ontology (BIBO)

http://bibotools.googlecode.com/svn/bibo-ontology/trunk/doc/index.html [Accessed 18 August 2014]

The Bibliographic Ontology Specification provides main concepts and properties for describing citations and bibliographic references (i.e. quotes, books, articles, etc) on the Semantic Web using RDF. It has been created by Frédérick Giasson (http://fgiasson.com/) and Bruce D'Arcus.

It includes: AcademicArticle; Article; AudioDocument; AudioVisualDocument; Bill; Book; BookSection; Brief; Chapter; Code; CollectedDocument; Collection; Conference; CourtReporter; Document; DocumentPart; DocumentStatus; EditedBook; Email; Event; Excerpt; Film; Hearing; Image; Interview; Issue; Journal; LegalCaseDocument; LegalDecision; LegalDocument; Legislation; Letter; Magazine; Manual; Manuscript; Map; MultiVolumeBook; Newspaper; Note; Patent; Performance; Periodical; PersonalCommunication; PersonalCommunicationDocument; Proceedings; Quote; ReferenceSource; Report; Series; Slide; Slideshow; Standard; Statute; Thesis; ThesisDegree; Webpage; Website; Workshop.

Consortia Advancing Standards in Research Administration Information (CASRAI)

http://dictionary.casrai.org/research-personnel-profile/contributions/outputs [Accessed 18 August 2014]

The Consortia Advancing Standards in Research Administration Information (CASRAI) is a non-profit standards development organisation. It is an international community of research funders and institutions which collaborate with the aim of ensuring seamless interoperability of research information. They develop and maintain a common data dictionary and seek to advance best practices for data exchange and reuse between research teams, institutions, and funding agencies throughout the entire life-cycle of research activity.

They use the term item type to record the budget to which an item belongs. Their best match to item types as used in repositories is their field 'Outputs' for which the options are:

Group	Sub-group	Definition
Publications		Collection of information records that, in

		combination, represent a full and up-to-date history of research or scholarly published outputs resulting from, or related to, the person's research activities.
	Journal Articles	Articles in peer-reviewed publications that disseminate the results of original research and scholarship.
	Journal Issues	Periodical publications aimed at fostering intellectual debate and inquiry. Special journal issues are produced by editors with an established record of scholarship in the field and able to provide the direction of the theme. Journal issues bear a unique number of reference for publication.
	Books	Books written by a single author or collaboratively based on research or scholarly findings generally derived from peer reviewed funding.
	Edited Books	Books edited by a single author or collaboratively for the dissemination of research or scholarly findings that generally result from peer reviewed funding.
	Book Chapters	Texts written by a single author or collaboratively based on research or scholarly findings and expertise in a field.
	Book Reviews	Critical review of works of fiction or non-fiction highlighting the contributions to an art, field or discipline.
	Translations	Translations of books and articles that identify modifications to the original edition, such as a new or revised preface.
	Dissertations	Treatise advancing an original point of view resulting from research: a requirement for a doctoral degree.
	Supervised Student Publications	Articles on research findings published jointly with or supervised by the thesis advisor. The findings relate to research undertaken by the student or the supervisor's program of research
	Newspaper Articles	Articles in a daily, weekly or monthly

		publication reporting on news and social issues aimed at the public. May entail critical analysis based on expertise in the field.
	Newsletter Articles	Articles in publications aimed at researchers, decision-makers, professionals and the public that report on a research project or on the activities of a research chair or a research centre. The Newsletters promote research activities to the community and the university; mobilize knowledge to improve practice and inform policy, and provide relevant and accessible information to the broader public.
	Encyclopedia Entries	Authored entries in a reference work or a compendium focusing on a particular domain or on all branches of knowledge.
	Magazine Articles	Articles in thematic publications published at fixed intervals.
	Dictionary Entries	Entries of new words, new meanings of existing words, changes in spelling and hyphenation over a longer period of time, and grammatical changes.
	Reports	Reports disseminating the outcomes and deliverables of a research contract. May entail a contribution to public policy.
	Working Papers	Preliminary versions of articles that have not undergone review but that may be shared for comment.
	Research Tools	Series of observations, measurements or facts identified from the research. They include bibliographies, indices and catalogues of research collections; concordances and dictionaries; materials that facilitate access to archival holdings or collections such as repository guides, inventories of a group of manuscripts or of a body of archives, inventories or documentary materials, thematic guides to archival materials, records surveys and special indices; scholarly editions; and data series.

	Manuals	Course and assignment materials produced for teaching purposes.
	Online Resources	Information accessible only on the web via traditional technical methods (ie hyperlinks).
	Tests	Assessments that include tests designed for general university selection, selection into specific courses or other evaluation purposes.
	Websites	Stand-alone locations on the web where multiple types of information on a specific theme are available. May include interactive features for contributions from readers.
Conferences		Collection of information records that, in combination, represent a full and up-to-date history of conference-presented outputs resulting from, or related to, the person's research activities.
	Conference Papers	Papers written alone or collaboratively, presented at an academic conference, and published in the proceedings (not in scholarly journals).
	Conference Abstracts	Texts of a specified length that states the issue to be discussed in a proposed conference paper. It serves as the basis for the acceptance of the paper at a conference. The abstract is published along with the paper.
	Conference Posters	Posters displayed in a conference setting and conveying research highlights in an efficient manner by compelling graphics. They may be peer-reviewed prior to acceptance and be published in the proceedings.
Artistic/Performance		Collection of information records that, in combination, represent a full and up-to-date history of artistic or performance outputs resulting from, or related to, the person's research or scholarly activities. Works may be produced alone or collaboratively as a creative practice that lead to production and dissemination.
	Artistic Exhibitions	Showings of works of art under the direction

		of a curator, an artist or as a graduation exhibition.
	Audio Recording	Works such as classical or aboriginal music produced as a result of an artistic practice. May be produced and be commercially disseminated.
	Exhibition Catalogues	Publications for a temporary exhibition or installation at a gallery or alternative space. It documents the contents of an exhibition, providing a forum for critical dialogue between curators, artists and critics. It serves as a scholarly resource and is eligible for prestigious prizes.
	Musical Compositions	Original musical scores available in a format for dissemination.
	Musical Performances	Original musical scores available in a format for dissemination.
	Radio/TV Programs	Programming produced for and broadcast on radio or TV.
	Scripts	Written versions of a play, film, broadcast or other dramatic composition used in preparing for a performance and annotated with instructions for the performance.
	Short Fiction	Original literary texts (prose or poetry).
	Theatric	Creation, production, dissemination of plays by professional theatre artists and organizations. The artifacts, such costumes, props, sets and scripts, may be the object of a public exhibit.
	Video Recordings	Works such as film, video, or new media developed as a result of an artistic practice. May serve for commercial purposes.
	Visual Artworks	Works such as film, video, or new media developed as a result of an artistic practice. May serve for commercial purposes.
	Sound Design	Art and process of manipulating audio elements to achieve a desired effect. It is employed in a variety of disciplines including film, theatre, music recording, and live music performance. It involves the manipulation of

		previously composed audio or the creative composition of new audio.
	Set Design	Creations of theatrical, as well as film or television scenery (also known as stage design, scenic design or production design).
	Light Design	Works done within theatre or in relation to an art installation to design a production.
	Choreography	Dance compositions created for production and dissemination.
	Curatorial/Museum Exhibitions	Exhibits under the guidance of a curator responsible for a collection.
	Performance Art	Avant-garde or conceptual pieces of music, song, dance or theatre performed for an audience. It may be scripted or improvisational.
Intellectual Property		Collection of information records that, in combination, represent a full and up-to-date history of the intellectual property owned by the person and resulting from, or related to, the person's research activities.
	Patents	A form of IP protection that defines the exclusive right by law for inventors and assignees to make use of and exploit their inventions, products or processes, for a limited period of time.
	Licenses	Signed agreements to exploit a piece of IP such as a process, product, data, or software.
	Disclosures	Publications that establish inventions as prior art thereby preventing others from patenting the same invention or concept.
	Registered Copyrights	Registered ownership of rights under a system of laws for promoting both the creation of and access to artistic, literary, musical, dramatic and other creative works.
	Trademarks	Marks such as a name, word, phrase, logo, symbol, design, image of a product or service that indicates the source and provides the right to control the use of the identifier.
Other Outputs		Collection of information records that, in combination, represent a full and up-to-date

		history of other types of research or scholarly outputs resulting from, or related to, the person's research activities.
	Standards and Policies	The development of a rule or principle that is used as a basis for judgement.
	Technical Standards	Technical Standards (industrial or otherwise) that have originated from the research projects in which new protocols, methods or materials may be developed.
	Spin Off Companies	A company set up by a Research Organization to make commercial use of the results and findings of the Research project.
	Research Techniques	A practical methods or skills applied to particular tasks identified as part of the research.
	Inventions	Practical and original outputs arising from research.
	Litigation	The act or process of contesting at law.
	Data Sets	A series of structured observations, measurements or facts identified from the research which can be stored in a database medium.

Schema.org

http://schema.org/docs/full.html [Accessed 18 August 2014]

Schema.org provides a collection of schemas that can be used by webmasters to markup HTML pages in ways recognised by major search providers, and also structured data interoperability (e.g. in JSON). It is a work in progress and there is no direct mapping to the types of items in institutional repositories.

Creative work has been selected as the most appropriate section of Schema to consider. It includes the following item types:

Answer

Article (BlogPosting; NewsArticle; ScholarlyArticle; MedicalScholarlyArticle; TechArticle; APIReference)

Blog

Book

Clip (RadioClip; TVClip)

Code

Comment

DataCatalog

Dataset

Diet

EmailMessage

Episode (RadioEpisode; TVEpisode)

ExercisePlan

ItemList

Map

MediaObject (AudioObject; DataDownload; ImageObject; MusicVideoObject; VideoObject)

Movie

MusicPlaylist (MusicAlbum)

MusicRecording

Painting

Photograph

Question

Recipe

Review

Sculpture

Season (RadioSeason; TVSeason)

Series (RadioSeries; TVSeries)

SoftwareApplication (MobileApplication; WebApplication)

TVSeason

TVSeries

WebPage (AboutPage; CheckoutPage; CollectionPage (ImageGallery; VideoGallery); ContactPage; ItemPage; MedicalWebPage; ProfilePage; QAPage; SearchResultsPage)

WebPageElement (SiteNavigationElement; Table; WPAdBlock; WPFooter; WPHeader; WPSideBar)

Appendix 7 - Versioning guidelines

VERSIONS toolkit

http://www2.lse.ac.uk/library/versions/VERSIONS_Toolkit_v1_final.pdf [Accessed 18 August 2014]

The VERSIONS (Versions of Eprints – a user Requirements Study and Investigation Of the Need for Standards) project addressed the issues and uncertainties relating to versions of academic papers in digital repositories. The project proposed five version types: Draft; Submitted Version; Accepted Version; Published Version; Updated Version.

Journal Article Versions (JAV): Recommendations of the NISO/ALPSP JAV Technical Working Group April 2008

http://www.niso.org/publications/rp/RP-8-2008.pdf [Accessed 18 August 2014]

These recommendations proposed seven version types: Author's Original (AO); Submitted Manuscript Under Review (SMUR); Accepted Manuscript (AM); Proof (P); Version of Record (VoR); Corrected Version of Record (CVoR); Enhanced Version of Record (EVoR).

Appendix 8 - Comparison of item types included in the various guidelines

IRUS-UK item types version 2	Item types recommended in the various guidelines considered (number in brackets refer to the guidelines (list below))
Art/Design Item	Designs (3); Art/Design item (7); Design (13); Design (14); Visual Artworks (17); Painting (18); Sculpture (18).
Article	Article (1); Journal articles (3); Journal Article (4); Journal Article Abstract (4); Letter (4); Letter to Editor (4); Journal Item (5); Journal Article; Submitted (5); Journal Article (5); Journal Article (6); Journal Item (6); Submitted Journal Article (6); Journal articles (8); Articles (9); Article (10); contributionToPeriodical (10); Article (11); contributionToPeriodical (11); Journal Article (12); Journal Article Abstract (12); Letter (12); Letter to Editor (12); Magazine Article (12); Journal Article (13); Journal Article Abstract (13); Letter (13); Letter to Editor (13); Magazine Article (13); Journal article (14); Journal article (15); Bulletin article (15); Occasional paper (15); AcademicArticle (16); Article (16); Journal Articles (17); Article (18); BlogPosting (18); NewsArticle (18); ScholarlyArticle (18); MedicalScholarlyArticle (18); TechArticle (18); APIReference (18).
Audio	Audio (1); Sound (2); Audio (9); Podcast (15); CDROM (15); AudioDocument (16); Audio recording (17); RadioClip (18); RadioEpisode (18); AudioObject (18); RadioSeason (18); RadioSeries (18).
Book	Book (1); Monograph (1); Books (3); Scholarly editions (3); Book (4); Inbook (4); Anthology (4); Monograph (4); Referencebook (4); Textbook (4); Encyclopedia (4); Otherbook (4); Book (5); Book (6); Scholarly Text (6); Books, sections and chapters (8); Books (9);book (10); book (11); Book (12); Anthology (12); Referencebook (12); Textbook (12); Monograph (12); Encyclopedia (12); Otherbook (12); Authored Book (12); Edited Book (12); Scholarly Edition (12); Book (13); Anthology (13); Monograph (13); Referencebook (13); Textbook (13); Encyclopedia (13); Otherbook (13); Authored Book (13); Edited Book (13); Scholarly Edition (13); Authored book (14); Edited book (14); Scholarly edition (14); Book (15); Book (16); EditedBook (16); MultiVolumeBook (16); Books (17); Edited Books (17); Book (18).
Book Section	Book section (1); Chapters (3); Book Chapter Abstract (4); Book Item (5); Book Item (6); Books, sections and chapters (8); Book sections (9); bookPart (10); bookPart (11); Book Chapter Abstract (12); Inbook (12); Chapter in Book (12); Encyclopedia Entry (12); Dictionary Entry (12); Book Chapter Abstract (13); Inbook (13); Chapter in Book (13); Encyclopedia Entry (13); Dictionary Entry (13); Chapter in book (14); Book chapter (15); BookSection (16); Book Chapters (17); Encyclopedia Entries (17).

Conference or Workshop Item	Conference item (1); Conferences (3); Posters (3); Conference Proceedings (4); Conference Proceedings Article); Poster (4); Presentation (4); Conference Item (5); (Conference Paper (5); Conference Poster (5); Conference Item (6); Conference Paper (6); Conference Poster (6); Conference and workshop papers (8); Conference or workshop items (9); conferenceObject (10); conferenceObject (11); conferenceContribution (11); conferenceItem (11); conferenceProceeding (11); conferencePaper (11); conferencePoster (11); Conference Proceedings (12); Conference Proceedings Article (12); Conference Abstract (12); Conference Poster (12); Poster (12); Presentation (12); Conference Contribution (12); Conference Proceedings (13); Conference Proceedings Article (13); Poster (13); Presentation (13); Conference Contribution (13); Conference Abstract (13); Conference Poster (13); Conference contribution (14); Conference paper (15); Conference proceedings (15); Seminar/Workshop (15); Organised event (15); Conference (16); Proceedings (16); Workshop (16); Slide (16); Slideshow (16); Conference Papers (17); Conference Abstracts (17); Conference Posters (17).
Dataset	Dataset (1);Dataset (2); Datasets (3); Datasets (8); Datasets (9); Research data sets and databases (13); Research datasets and databases (14); Dataset (15); Data Sets (17); DataCatalog (18); Dataset (18); DataDownload (18).
Exam Paper	Test (13).
Image	Image (1); Image (2); Images (9); Digital or visual media (13); Digital or visual media (14); Image (16); Map (16); Map (18); ImageObject (18); Photograph (18).
Journal	Journal (4); Journal (12); Journal Issue (12); Journal (13); Journal issue (15); Journal Issue (13); Journal (16); Magazine (16); Periodical (16); Journal Issues (17).
Learning Object	Teaching resource (1); Content-packaged learning objects (8); Course materials (9); Study skills, support and revision materials (9); lecture (10); lecture (11); Lecture (15).
Moving Image	Video (1); Multimedia and audio-visual materials (8); Video (9); Radio/TV Program (13); Video Recording (13); Visual Artwork (13); Broadcast (15); Video (15); DVD (15); AudioVisualDocument (16); Film (16); Video Recordings (17); TVClip (18); TVEpisode (18); VideoObject (18); Movie (18); TVSeason (18); TVSeries (18).
Music/Musical Composition	Composition (1);Compositions (3); Composition (9); Composition (13); Musical Composition (13); Composition (14); Musical Compositions (17); Musical Performances (17); MusicVideoObject (18); MusicAlbum (18); MusicRecording (18).

Other	Other (1); Artefact (1); Experiment (1).
	Software (2); Collection (2); Event (2); InteractiveResource (2); Service (2).
	Software (3); Artefacts (3); Other (3).
	Commentary (4); Annotation (4).
	Other special items (8); Bibliographic references (metadata only) (8); Software (8).
	Curricula and syllabuses (9); Course validation documents (9); Assessment materials (9); Student-produced work (9); Artefact (9); Experiment (9).
	annotation (10); other (10).
	annotation (11); other (11); researchProposal (11); technicalDocumentation (11).
	Supervised Student Publications (12); Annotation (12); Transliteration (12); Translation (12); Standard and Policy (12).
	Supervised Student Publications (13); Annotation (13); Transliteration (13); Translation (13); Artefact (13); Devices and products (13); Software (13); Other (13); Research Tool (13); Sound Design (13); Set Design (13); Light Design (13); Choreography (13); Intellectual Property (13); License (13); Disclosure (13); Registered Copyright (13); Trademark (13); Standard and Policy (13); Technical Standard (13); Research Techniques (13); Invention (13); Litigation (13).
	Artefact (14); Devices and products (14); Software (14).
	Technical standard (15); Other publication (15); Guide (15); Software (15); Algorithm (15); Computer model (15); E-business platform (15); Grid application (15); Other (Electronic) (15); Collaboration/Partnership (15); Board/Council/Panel (15); Committee (15); Networks (15); Further funding (15); Staff development (15); Training course (15); Dissemination/Communication (15); Intellectual Property (15); Exploitation mechanism (15); Degree/Other honour (15); Summary of impact (15); Policy influence (15).
	Bill (16); Brief (16); Chapter (16); Code (16); CollectedDocument (16); Collection (16); CourtReporter (16); Email (16); Event (16); Excerpt (16); Hearing (16); Interview (16); Issue (16); LegalCaseDocument (16); LegalDecision (16); LegalDocument (16); Legislation (16); Note (16); PersonalCommunication (16); PersonalCommunicationDocument (16); Quote (16); ReferenceSource (16); Series (16);

	Standard (16); Statute (16). Translations (17); Supervised Student Publications (17);Dictionary Entries (17); Research Tools (17); Tests (17); Sound design (17); Set Design (17); Light Design (17); Choreography (17); Licenses (17); Disclosures (17); Registered Copyrights (17); Trademarks (17); Standards and Policies (17); Technical Standards (17); Spin Off Companies (17); Research Techniques (17); Inventions (17); Litigation (17). Code (18); Comment (18); Diet (18); EmailMessage (18); ExercisePlan (18); ItemList (18); Question (18); Recipe (18). Answer (18); Blog (18).
Patent	Patent (1); Patents (3); Patent (5); Patent (6); Patents (8); Patents (9); patent (10); patent (11); Patent / published patent application (13); Patent/ published patent application (14); Patent (16); Patents (17).
Performance	Performance (1); Performances (3); Performance (7); Performance (9); Performance (13); Musical performance (13); Theatric (13); Performance (14); Performance (16); Radio/TV Programs; Theatric (17); Performance Art (17).
Preprint	preprint (10); preprint (11).
Report	Reports (3); Report (4); Short Communication (4); Report (5); Report (6); Technical reports (9); Project reports (9); report (10); Report (11); reportPart (11); Short Communication (12); Research Report for external body (12); Confidential Report (for external body) (12); Report (13); Short Communication (13); Research report for external body (13); Confidential Report (for external body) (13); Research report for external body (14); Confidential report for external body (14); Technical report (15); Consultancy report (15); Annual report (15); Other report (15); Impact report (15); Full research report (15); Research summary (15); Report (16); Reports (17).
Review	Book Review (4); Review (4); Book Chapter Review (4); Book Review (5); Book Review (6); review (10); bookReview (11); review (11); Book Review (12); Book Chapter Review (12); Journal Article Review (12); Book Review (13); Book Chapter Review (13); Journal Article Review (13); Review (15); Book Reviews (17); Review (18).
Show/Exhibition	Exhibition (1); Exhibitions (3); Show/Exhibition (7); Show/ exhibition (9); Exhibition (13); Curatorial/Museum Exhibitions (13); Exhibition (14); Artistic Exhibitions (17); Exhibition Catalogues (17); Curatorial/Museum Exhibitions (17).

Text	Text (2); Manual (4); Newsclipping (4); Scholarly Text (5); News Item (5); News Item (6); Documentation & manuals (9); Manual (12); Newsclipping (12); Commentary (12); Manual (13); Newsclipping (13); Commentary (13); Script (13); Short Fiction (13); Manual (15); Pamphlet (15); Booklet (15); Newsletter (15); Newspaper (15); Newspaper (16); Document (16); DocumentPart (16); DocumentStatus (16); Manual (16); Letter (16); Manuscript (16); Newspaper Articles (17); Newsletter Articles (17); Magazine Articles (17); Manuals (17); Scripts (17); Short Fiction (17).
Thesis or dissertation	Thesis (1); Theses / Dissertations (3); PhD Thesis (4); Doctoral Thesis (4); Thesis or Dissertation (5); Thesis or Dissertation (6); Theses and Dissertations (8); Doctoral theses (9); Masters theses & dissertations (9); Bachelors dissertations (9); bachelorThesis (10); masterThesis(10); doctoralThesis (10); bachelorThesis (11); masterThesis(11); doctoralThesis (11); studentThesis (11); PhD Thesis (12); Doctoral Thesis (12); PhD Thesis (13); Doctoral Thesis (13); Thesis (15); Thesis (16); ThesisDegree (16); Dissertations (17).
Unknown	
Website	Internet publications (3); Online Resource (12); Website content (13); Online Resource (13); Website content (14); Website (15); Webpage (16); Website (16); Online Resources (17); Websites (17); AboutPage (18); CheckoutPage (18); ImageGallery (18); VideoGallery(18); ContactPage (18); ItemPage (18); MedicalWebPage (18); ProfilePage(18); QAPage(18); SearchResultsPage(18); WebPageElement (18); SiteNavigationElement (18); Table (18); WPAdBlock (18); WPFooter (18); WPHeader (18); WPSideBar (18).
Working Paper	Working or Discussion Paper (5); Working or Discussion Paper (6); Unpublis.hed reports & working papers (8); Working papers & discussion papers (9); workingPaper (10); workingPaper (11); Working Paper (12); Working Paper (13); Working paper (14); Working paper (15); Discussion paper (15); Working Papers (17)

1   EPrints
2   DCMITYPE (recommended by DSpace)
3   Symplectic
4   Converis
5   SWAP
6   IRIScotland
7   Kultur

8   Jisc InfoKit List 1

9   Jisc InfoKit: List 2

10 DRIVER

11 info:eu-repo/semantics (recommended by OpenAIRE)

12 OpenAIRE Guidelines for CRIS Managers based upon CERIF-XML

13 CERIF

14 REF2014

15 ROS

16 BIBO

17 CASRAI

18 Schema

Appendix 9 - IRS item types

This Appendix lists the item types in use in the 130 UK academic repositories harvested by IRS as at August 2012.

The table shows the numbers of each item type included in the IRS item type mappings for those item types which were recommended for use in IRUS-UK in versions 1.0 and 2.0 of this report. It is followed by a detailed listing of individual item types.

IRUS-UK item type	No. of items of each type in IRS as at August 2012
Art/Design Item	891
Article	606106
Audio	1233
Book	58863
Book Section	99800
Conference or Workshop Item	140281
Dataset	421
Exam Paper	N/K
Image	59986
Journal	3894
Learning Object	3034
Moving Image	2227
Music/Musical Composition	427
Other	N/K
Patent	936
Performance	498
Preprint	4790
Report	21053
Review	7874
Show/Exhibition	3962
Text	66950
Thesis or dissertation	57571
Unknown	N/K
Website	1438
Working Paper	6007

1; 10; 13; 14; 15; 16: 18; 19: 2; 20; 3; ; 5; 6; 7; 8; 9; ["eprint_typename_" not defined]; ["eprint_typename_report" not defined]; ["eprint_typename_review" not defined]; a; abstract; accepted; accepted manuscript; accepted version; addendum; aerial or satellite imagery; alps common competency map; application; artist s book; author post-print (non-refereed); animation; annotations to an asp; annual report; application/pdf; applied archaeology collection; archives and special collections; artefact; artefact/device; artefacts; design and exhibitions; an article; article; article; article section; article (literature review; editorial); article / editorial; article; post-print; article; pre-print; article: post-print; article; presentation; article from non-refereed journal (author version); article from non-refereed journal (publisher version); articles; art design item; art/design item; art object; art/poetry/short story performance or reading; artwork; artwork/design object; assessment; audio; audio file; audio recording; audios; author post-print; author post-print (pre-copy editing); author post-print (refereed); author s final draft; author s original; author version; authored book; authored books; b; biography (individual); biosciences; blog; book; book; book/report/proceedings; book/s; book (monograph); book (monograph): section of book or chapter of book; book (monograph) editorial; book chapter; book chapter (conference proceedings); book chapter; preprint; book chapter; presentation; book chapter: author post-print (pre-copy editing); book chapter: publisher version; book chapters; book item; book or book chapter; book or report section; book review; book_review; book reviews; book section; book sections; book_section; book_section; book_chapter; bookchapter; booklet; bookmarks; bookreview; briefing paper; broadcast; buildings; bw image; c; case report; case reports; case study; centaur administrative document; chapter; chapter in book; chapters in books; clinical investigation; clinical trial; phase i; cochrane review; collection; colour image; comment;letter; commentary; commentary series; commissioned report; comparative study; composition; compositions; conceptual learning object; conference; conference contribution; conference item; conference_item; conference_item;paper; conference_item;poster; conference_item;presentation; conference_item;speech; conference_item;workshop; conference object; conference or workshop item; conference or workshop items; conference papaer; conference paper; conference papers; conference poster; conference preprint; conference presentation; conference proceedings; conference proceedings - peer reviewed; conference_proceedings (peer reviewed); conference proceeding; conference publication; conference - published paper; conference report; conferenceobject; conferencepaper; conferenceproceedings; contribution in book/report/proceedings; course; crystal structure data holding; d; d.clin. philosophy; database; database/dataset; database or web resource; dataset; datasets; datasets / databases; dba; dclinpsy; dclinpsych; dclinpsy in clinical and community psychology; dclinpsych in clinical and community psychology; dclinpsych in clinical and community psychology; dclinpsychol doctorate in clinical psychology; dcounspsych; ded psy in educational; child and community psychology; dedpsy in educational; child & community psychology; dedpsy in educational; child; and community psychology; dedpsy; dedpsy in

educational; child and community psychology; deng doctor of engineering; departmental technical report; design; device/product; diagram; digital; digital artefact; digital dictionary; digital scholarly resource; digital terrain model; discussion or working paper; discussion paper; dissertation; dm; doctor of applied social research; doctor in clinical psychology (clinpsyd); doctor of clinical psychology in clinical and community psychology; doctor of education; edd doctor of education; doctor of education in education; doctor of philosophy in management studies; doctor of education in mathematics education; doctor of education in tesol; doctor of educational psychology in educational; child and community psychology; doctor of educational psychology in educational; child & community psychology; doctor of medicine (md); doctor of medicine (research) md (res); doctor of nursing; doctor of philosophy; doctor of philosophy (phd); doctor of philosophy in accounting; doctor of philosophy in arab and islamic studies; doctor of philosophy in biological sciences; doctor of philosophy in education; doctor of philosophy in english; doctor of philosophy in management studies; doctor of philosophy in sociology; doctor of philosophy in theology; doctor of science (dsc); doctoral; doctoral thesis; doctoral thesis or dissertation; doctorate by public works; doctorate in clinical and community psychology; doctorate of clinical and community psychology; doctorate of educational psychology in educational; child and community psychology; document from web; draft; drawn image; dsocsci; dvd; e; ebook; edd; edd in education; edd in educational psychology; edd in mathematics education; edd in special educational needs; edd in teaching english as a foreign language; edd in teaching english to speakers of other languages; edd in teaching english to speakers of other languages (tesol); edd in tesol; edd tefl; edd tesol; editedbook; edited_book; edited book; edited books; edited special journal issue; editorial; editorial material; electronic book; electronic journal; electronic newspaper article; electronic thesis; encyclopedia entry; engd; engineering doctorate (engd); essay; ethnicity; evaluation report; evaluation studies; event or exhibition; exam; exam paper; exercise; exhibition; exhibition catalogue; external thesis; experiment; extract; f; figure; film; film/broadcast; film/video; final draft; final draft paper; final year project; flv; fre; funding application; g; game; gdp report; gis vector data; government publication; guide or manual; guidelines; h; honorary role; image; image;3-d; image/jpeg; image (still); image (moving); in collection; in press; in vitro; index; nfo:eu-repo/semantics/acceptedversion; info:eu-repo/semantics/article; info:eu-repo/semantics/bachelorthesis; info:eu-repo/semantics/book; info:eu-repo/semantics/bookpart; info:eu-repo/semantics/conferenceobject; info:eu-repo/semantics/doctoralthesis; info:eu-repo/semantics/draft; info:eu-repo/semantics/masterthesis; info:eu-repo/semantics/publishedversion; info:eu-repo/semantics/report; info:eu-repo/semantics/review; info:eu-repo/semantics/submittedversion; info:eu-repo/semantics/updatedversion; information resource; installation; invited lecture; interactive resource; interactiveresource; internet publication; irp report; j; journal; edited journal; journal (on-line/unpaginated); journal (paginated); journal article; journal - article; journal article - published version; journal

article - submitted version; journal (full / special issue); journal issue; journal item; journalarticle; l; leaflet; learning activity; learning material; learning object; lecture; lecture notes; lecture transcript; letter; letter to the editor; llm; llm master of laws; m.ed; ma; ma by research; ma early years; ma master of arts; manual; manuscript; map; marker paper / data plan; master of laws; master of letters; master of philosophy; master of philosophy (mphil); master of philosophy (m.phil.); master of philosophy in biological sciences; master of philosophy in management; master of science; masters; masters by research; masters by research.; masters by research in renewable energy; masters degree; masters dissertation; mba; mbyres; mbyres in biosciences; mbyres in theology and religion; md; md doctor of medicine; mdsc; med; med master of education; meetings & proceedings; meetings & proceedings; presentation; meetings and proceedings; miscellaneous conference item; mims preprint; mixed material; mlitt master of letters; mlitt master of literature; mmath; monograph; monograph; project; monographs; monthly archive; mov; moving image/broadcast; movingimage; moving image; mp3; mphil; mphil in arab and islamic studies; mphil in arabic and islamic studies; mphil in biological sciences; mphil in drama; mphil in english; mphil in geography; mphil in history; mphil in management studies; mphil in maritime history; mphil in performance practice (drama); mphil in physics; mphil in sport and health sciences; mphil in theology; mphil master of philosophy; mres; mres environmental biology; m.sc; m.sc.; msc; msc architecture: advanced energy and environmental studies; msc by res.; msc by research; msc econ; msc master of science; msc(r) master of science by research; multimedia; multimedia item; digital video; multimedia item; exhibition / installation; music item; musical score; mth; mth of theology; n; n/a; narrative text; newsletter; news; news item; newspaper/magazine article; non peer-reviewed; nonpeerreviewed; not applicable; not applicable paper; not available; not peer reviewed; not published; not yet published; occasional paper; off-air recording; online db/computer file; official report; original artwork; other; other conference paper; other form of assessable output; other journal paper; other; presentation; part iii project report; part of book or chapter of book; partent; patent; patent; option 1; peer reviewed; peer reviewed conference paper; peer reviewed conference proceedings; peer-reviewed journal article; peer reviewed journal paper; peer-reviewed; peer-reviewed conference paper; peerreviewed; performance; performance/live event; periodical; ph.d; ph.d.; phd; phd (by publication); phd by publication in finance; phd doctor of philosophy; phd genomics in society; phd in accountancy; phd in arab and islamic studies; phd in arab & islamic studies; phd in arab and islamic studies; phd in archaeology; phd by publication in archaeology; phd in biological sciences; phd in biosciences; phd in chemistry; phd in classics; phd in computer science; phd in cornish studies; phd in drama; phd in earth resources; phd in economics; phd in education; phd in engineering; phd in english; phd in ethno-political studies; phd in european studies; phd in film; phd in film by practice; phd in film studies; phd in finance; phd in french; phd in genomics in society; phd in geo-environmental engineering; phd in geography; phd in geography and politics; phd in geotechnical engineering; phd in german;

phd in hispanic studies; phd in history; phd in italian; phd in leadership studies; phd in law; phd in management studies; phd in management studies?; phd in maritime history; phd in mathematics; phd in medical history; phd in medieval studies; phd in middle east politics; phd in modern languages; phd in music; phd in performance practice; drama; phd in performance practice (drama); phd in philosophy; phd in physics; phd in politics; phd in psychology; phd in sexuality and gender studies; phd in sociology; phd in sport & health sciences; phd in sport and health science; phd in sports and health sciences; phd management studies; phd sport & health sciences; phd sport and health sciences; phd in sport and health sciences; phd in theology; phd in water engineering; phd mathematics; phd physics; phd psychology; phd.; phd(p) doctor of philosophy by research publications; photograph; plan or blueprint; play; short story or poetry; podcast; poem; policy brief; policy paper; post-print; postdoctoral; postgraduate; poster; poster / presentation; poster presentation; post-print (author final draft post-refereeing); postprint; powerpoint presentation; pre-print; pre-print (pre-refereeing); preprint; presentation; press article; printed ephemera; problem statement; proceedings paper; professional activity; professional doctorate in clinical psychology (d.clin.psych.); professional doctorate in counselling psychology (d.coun.psych.); professional doctorate in educational and child psychology (d.ed.ch.psych.); professional doctorate in educational psychology (d.ed.psych.); professional doctorate in psychoanalytic psychotherapy (d.psych.psych.); project; project report; project report and bibliography; project summary; proof; published; published_abstract; published article; published book; published book chapter; published conference or workshop item; published conference paper; published conferphd in modern languages; published editorial; published journal paper; published online; published version; published version paper; published vesion; publisher pdf; publisher s version; publisher version; publisher version (final published refereed version); publisher version (non-refereed); publisher version (refereed); q; questionnaire; quiz; r; radio interview; recording; musical; recording; oral; recording; oral report; ref_case_study; refereed; refereed conference paper; refereed published conference paper; refereed published journal article; refereed published journal paper; report; reports/papers; report/paper; report; discussion paper; report; document; report; occassional paper; report; project report; report; research report; report; technical report; report; working paper; research reports; research masters; research monograph; research paper; research report; research report (external); research report or paper; research support; n.i.h.; extramural; research support; n.i.h.; intramural; research support; non-u.s. gov t; research support; u.s. gov t; non-p.h.s.; resource; resource bank; response to article; review; reviewed (other); revised version 12 march 2012; s; scanned map; screencast; short film; study group report; scholarly edition; scholarly text; self assessment;; short communication; short film available online; show / exhibition; show/exhibition; shows / exhibitions; shows/exhibitions; simulation; slide; software; software; multimedia; sound; sound / audio; sound recording; special issue; still image; still/graphic work; stillimage; submitted; submitted version; submitted journal article;

symposium; table; tabular data; taught course thesis; taught masters; teaching resource; technical documentation; technical report; technicalreport; text; theses; theses/dissertations; theses and dissertations; thesis; thesis; edd; thesis; msc by research; thesis or dissertation; thesis or dissertation; doctoral; doctor of education (de); thesis or dissertation; doctoral; doctor of medicine (md); thesis or dissertation; doctoral; doctor of philosophy (phd(r)); thesis or dissertation; doctoral; doctor of philosophy by research publications (phd(p)); thesis or dissertation; doctoral; doctor of philosophy(phd); thesis or dissertation; masters; doctor of philosophy (phd(r)); thesis or dissertation; masters; master of letters (mlt); thesis or dissertation; masters; master of philosophy (mph(r)); thesis or dissertation; masters; master of science (msc); thesis or dissertation; masters; master of science by research (mode a) (msc(r-a)); thesis or dissertation; masters; supervised postgraduate (spg); thesis; phd; thing; this is a review of a theatrical production; transcribed text; transcription; translations; tutorial; undergraduate; unpublished; unpublished conference or workshop item; updated author s original; updated version; updated publisher s version; video; video/film; video_research; videos; visual media; visual or digital media; web page; web resource; web site; website content; web_publication; webpage; webpages; website; working / discussion paper; working or discussion paper; working paper; working paper; final version available online on sage journals online at http://ema.sagepub.com/; working paper; re-print; ;working_or_discussion_paper; working/discussion paper; workbook; workshop; x-stream assessment

Appendix 10 – Actual usage of IRUS-UK item types by participating repositories from date of joining (earliest 5 July 2012) to April 2014

IRUS-UK item type	No. of items	Downloads to Apr-2014
Art/Design Item	109	2,762
Article	75,749	5,620,289
Audio	60	7,138
Book	12,772	1,647,827
Book Section	9,304	814,645
Conference or Workshop Item	23,040	1,162,631
Dataset	72	3,977
Exam Paper	5,357	71,655
Image	3,518	409,189
Journal	40	432
Learning Object	404	46,751
Moving Image	221	13,828
Music/Musical Composition	166	2,754
Other	5,083	247,416
Patent	155	2,017
Performance	87	5,018
Preprint	185	9,243
Report	7,570	530,606
Review	95	2,567
Show/Exhibition	788	25,244
Text	1,225	82,007
Thesis or dissertation	37,801	4,180,043
Unknown	7,167	15,850
Website	3,427	96,205
Working Paper	2,393	235,512

Appendix 11 Suitability of IRUS-UK item types and proposals for future use

IRUS-UK item type	Comments on suitability	Proposed future use
Art/Design Item	Recommended by Kultur and requested in feedback from repository community feedback. Not heavily used by current IRUS-UK participants but usage will increase as more creative arts repositories join	Continue
Article		Continue
Audio	Not heavily used by current IRUS-UK participants but anticipate usage will increase with new participants based upon IRS figures	
Book		Continue
Book Section		Continue
Conference or Workshop Item	Have received a request from IRUS-UK CAG member to distinguish between Conference Papers /Posters and Conference Proceedings as the latter would be subject to further peer review and would be included in funders' mandates. We could potentially make a reasonable approximation to this, using the supplementary item types Peer reviewed and NonPeerReviewed for those repositories which use a generic item type here eg Conference or Workshop Item.	Split into 'Conference Papers /Posters' and 'Conference Proceedings'. Where it is impossible to map to either of these categories, use 'Conference or Workshop Item – Other'
Dataset	Little used as yet but anticipated	Continue

	that significant numbers of datasets will be added to institutional repositories going forward. There are also some specific data repositories and we need to consider how best to report on their usage in IRUS-UK.	
Exam Paper		Continue
Image		Continue
Journal	Little used and most usage is for images of front covers of magazines hence little value in showing this separately	Discontinue and move items mapped here to 'Image' or 'Other' as appropriate.
Learning Object	There are also some specific learning object repositories and we need to consider how best to report on their usage in IRUS-UK.	Continue
Moving Image		Continue
Music/Musical Composition		Continue
Other	Artefact, which is included here, was suggested in feedback from the repository community as a separate item type but that hasn't been implemented as this type appears to be used for differing types of items across current IRUS-UK participants.	Continue
Patent	Mostly accurately used for actual patents but little used.	Continue
Performance	Recommended by Kultur and requested in feedback from repository community feedback. Not heavily used by current IRUS-UK participants but usage will increase as more creative arts repositories join	Continue

Preprint	Little used, lack of clarity about definition and potential that many similar items are classed as Articles	Continue but investigate use of this item type prior to next review of the use of item types by IRUS-UK.
Report		Continue
Review	Mostly book reviews in journals	Discontinue and move items mapped here to 'Article'
Show/Exhibition	Recommended by Kultur and requested in feedback from repository community feedback. Not heavily used by current IRUS-UK participants but usage will increase as more creative arts repositories join	Continue
Text		Continue
Thesis or dissertation		Continue
Unknown		Continue
Website		Continue
Working Paper		Continue